

**[0084]** A low power programmable digital filter adapted for use with a telecommunications system transceiver. The digital filter includes a first finite impulse response filter section for receiving an input signal and having a first transfer function. An infinite impulse response filter section is connected to the first finite impulse response filter section and has a second transfer function. A second finite impulse response filter section is connected to the infinite impulse response filter section and outputs a filtered output signal in response the receipt of the input signal by the programmable digital filter. The second finite impulse response filter section has a third transfer function. A programmable coefficient is included in the first, second, and/or the third transfer function.